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BRIARWOOD LANE ROADWAY IMPROVEMENTS

MUNICIPAL PROJECT NUMBER 4109

FEASIBILITY REPORT

December 2014

Council Approval Date: December 16, 2014

Prepared for
City of Baxter

WSN No. 0102B0365.000

**BRIARWOOD LANE ROADWAY IMPROVEMENTS
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I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

	41983	12-18-14
Aric Welch	License Number	Date
Professional Engineer		

**BRIARWOOD LANE ROADWAY IMPROVEMENTS
MUNICIPAL PROJECT NUMBER 4109**

FEASIBILITY REPORT

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Construction Quote – May, 2014

STATEMENT OF PURPOSE

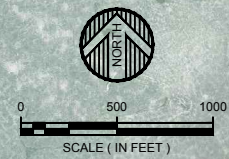
The purpose of this report is to prepare a feasibility study relative to proposed improvements on Briarwood Lane, extending southwesterly from Brentwood Road to termination at a cul-de-sac. The project area is approximately 1,700 feet in length.

Briarwood Lane is currently one of three existing gravel surfaced roadways remaining in the City of Baxter (the other two include Deerwood Road and Joler Road). To minimize maintenance costs, the City of Baxter been considering updating these gravel surfaced roadways to bituminous surfacing.

In addition, area residents requested the City consider paving Briarwood Lane. In response to the residential requests, the City conducted a public informational meeting on August 6, 2004. At that meeting, options and estimated costs were reviewed with the residents. Based on input received at that meeting, the City decided to proceed with the project and move forward with steps necessary for an assessment project.

This report will review existing conditions in the project area, propose feasible improvements, estimate project costs, estimate assessment costs, review project implementation, and present conclusions and recommendations for the Briarwood Lane project area.

The project area is illustrated in Exhibit A.



EXISTING CONDITIONS

Current zoning in the project area is R-1 Low Density Residential and the draft Comprehensive Plan being considered by the City indicates the area will likely remain with the current land use classification.

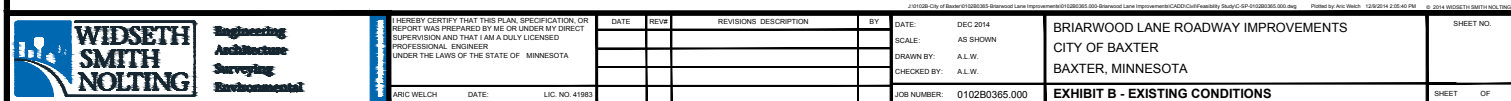
Right-of-way through the project area is 66 feet, with the exception of two areas. At the northern most curve the corridor widens to a section line. The corridor also widens to approximately 100' around the cul-de-sac at the south termination.

The existing roadway was constructed when the area was developed and is gravel surfaced, approximately 24' in width. The cul-de-sac at the south end is approximately 60' in diameter and also gravel surfaced. The existing gravel surfacing has been investigated by the City and appears to vary between 5 and 6 inches in depth. Storm water is controlled via drainage swales on each side of the roadway. Joler Road is an existing bituminous surfaced roadway that connects to Briarwood Lane from the east, and currently serves two developed residential parcels. All roadways in the project area are maintained by the City of Baxter.

The roadway currently abuts 12 individual parcels. Three parcels are currently developed with residential homes. Two parcels are available for residential development but are not currently occupied. Two parcels are corner lots located at the intersection with Brentwood Road and both gain access from Brentwood. The remaining five parcels are wetland areas and not developable or have access from Joler Road or Persimmon Drive.

No municipal utilities (sanitary sewer or water) are currently extended to the project area and currently long-range plans do not show the area being provided with municipal utilities.

The existing conditions are shown in Exhibit B.



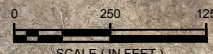
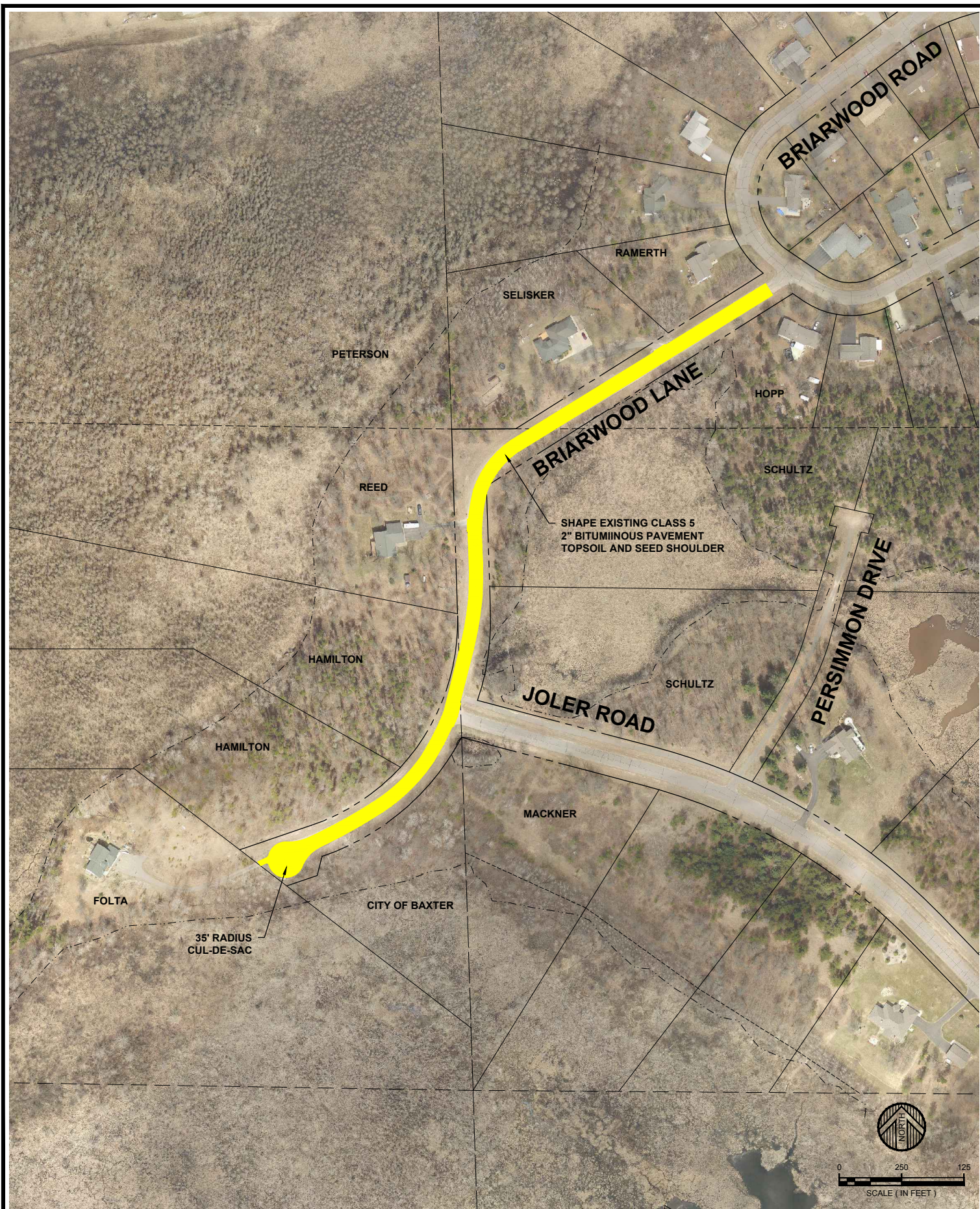
PROPOSED IMPROVEMENTS

Proposed improvements consist of updating the roadway from gravel surfacing to bituminous surfacing. The existing roadway would be re-shaped to a 30' wide roadbed. A 26' wide bituminous surface course is proposed to be paved over the re-shaped roadbed. Existing gravel driveways would be blended to match the new bituminous surface, and a 2' wide bituminous apron would be constructed at the connection to the newly paved roadway. No additional aggregate material is proposed.

Restoration would be provided with a 2' wide topsoil shoulder placed along each side of the roadway. The topsoil would then be seeded.

The only other option considered was the "do nothing" approach. Doing nothing does not resolve requests from residents or accomplish the goal of eliminating costs associated with gravel maintenance.

Exhibits C shows the proposed improvements and Exhibit D shows the proposed roadway section.



SCALE (IN FEET)



**Engineering
Architecture
Surveying
Environmental**

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

ARIC WELCH DATE: LIC. NO. 41983

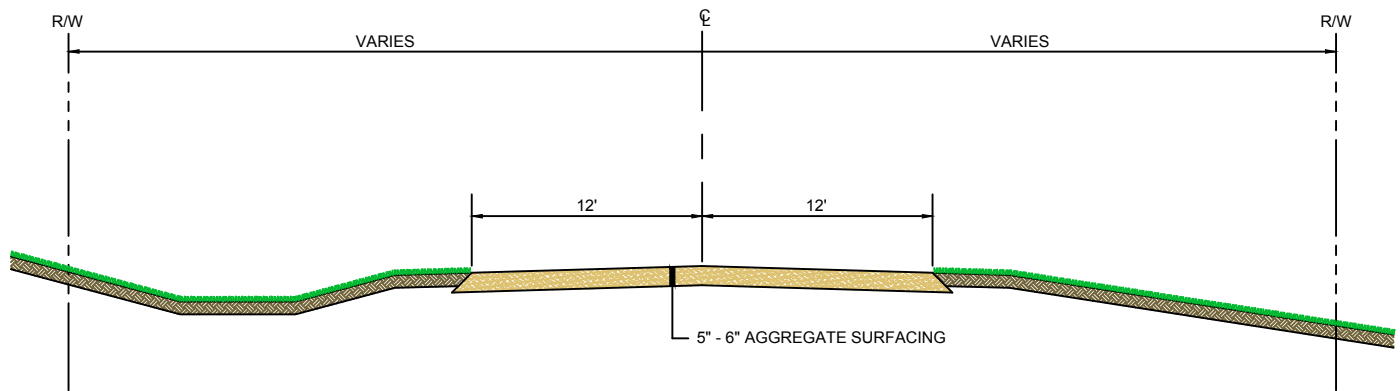
DATE	REVISION	DESCRIPTION	BY

DATE: DEC 2014
SCALE: AS SHOWN
DRAWN BY: A.L.W.
CHECKED BY: A.L.W.
JOB NUMBER: 0102B0000.000

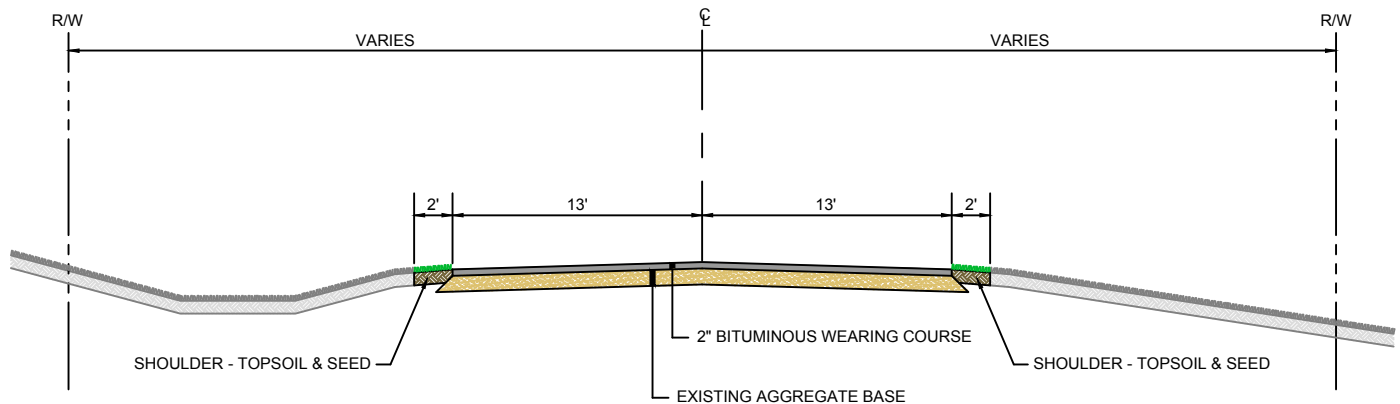
**BRIARWOOD LANE ROADWAY IMPROVEMENTS
CITY OF BAXTER
BAXTER, MINNESOTA**

EXHIBIT C - PROPOSED IMPROVEMENTS

SHEET NO.
 OF



EXISTING ROADWAY SECTION BRIARWOOD LANE



PROPOSED ROADWAY SECTION BRIARWOOD LANE



WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

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DATE: DEC 2014
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CHECKED BY: A.L.W.
JOB NUMBER: 0102B0365.000

BRIARWOOD LANE ROADWAY IMPROVEMENTS
CITY OF BAXTER
BAXTER, MINNESOTA

EXHIBIT D - TYPICAL SECTION

SHEET NO.

SHEET OF

ESTIMATED PROJECT COSTS

The estimated costs for proposed improvements in the study area are as follows:

Estimated Construction Costs:	\$50,000
<u>Estimated Engineering, Legal and Administration Costs:</u>	<u>\$10,000</u>
Estimated Project Costs:	\$60,000

The estimated construction cost was based on a quote from a local contractor in May of 2014. Engineering, administration, and legal fees were estimated to be 20% of the construction cost.

Costs can vary widely depending upon many factors such as weather, economic conditions, size of project, and the workload of available contractors.

It must also be noted that costs presented in this report are 2014 costs and will need to be updated prior to any future public hearings or presentations. Actual costs can only be determined by bidding the project.

PROJECT IMPLEMENTATION

Costs for the proposed improvements were assumed to be generated via City contribution and special assessments to benefited property owners. All estimated assessments were determined in accordance with the current version of the “City of Baxter – Assessment Policy For Public Initiated Improvements”.

Based on the current City assessment policy, all costs for proposed roadway improvements would be assessed to the benefitted property owners, with no City contribution. However, the City recognizes the project area is very unique for the following reasons:

- ✓ The two corner lots that abut Brentwood Road have already paid roadway assessments and are not eligible to be assessed as part of this project
- ✓ Five parcels that abut Briarwood Lane are not developable due to the amount of existing wetland area or have access from Joler Road or Persimmon Drive and are not eligible to be assessed as part of this project

Due to the uniqueness of the project area and lack of assessable footage, the City is proposing to pay for 44.23% of the project costs. The percentage was determined based on the amount of un-assessable front footage as compared to total front footage in the project area.

Since assessable parcels in the project area are similar in size and receive similar benefit, the “Unit” assessment method was utilized. Based on the approach outlined above, the following were determined.

Estimated Project Costs:	\$60,000
Less City Contribution (44.23%):	\$26,540
Remaining Assessable Costs:	\$33,460
Assessable Units:	5
Cost Per Assessable Unit:	\$6,692

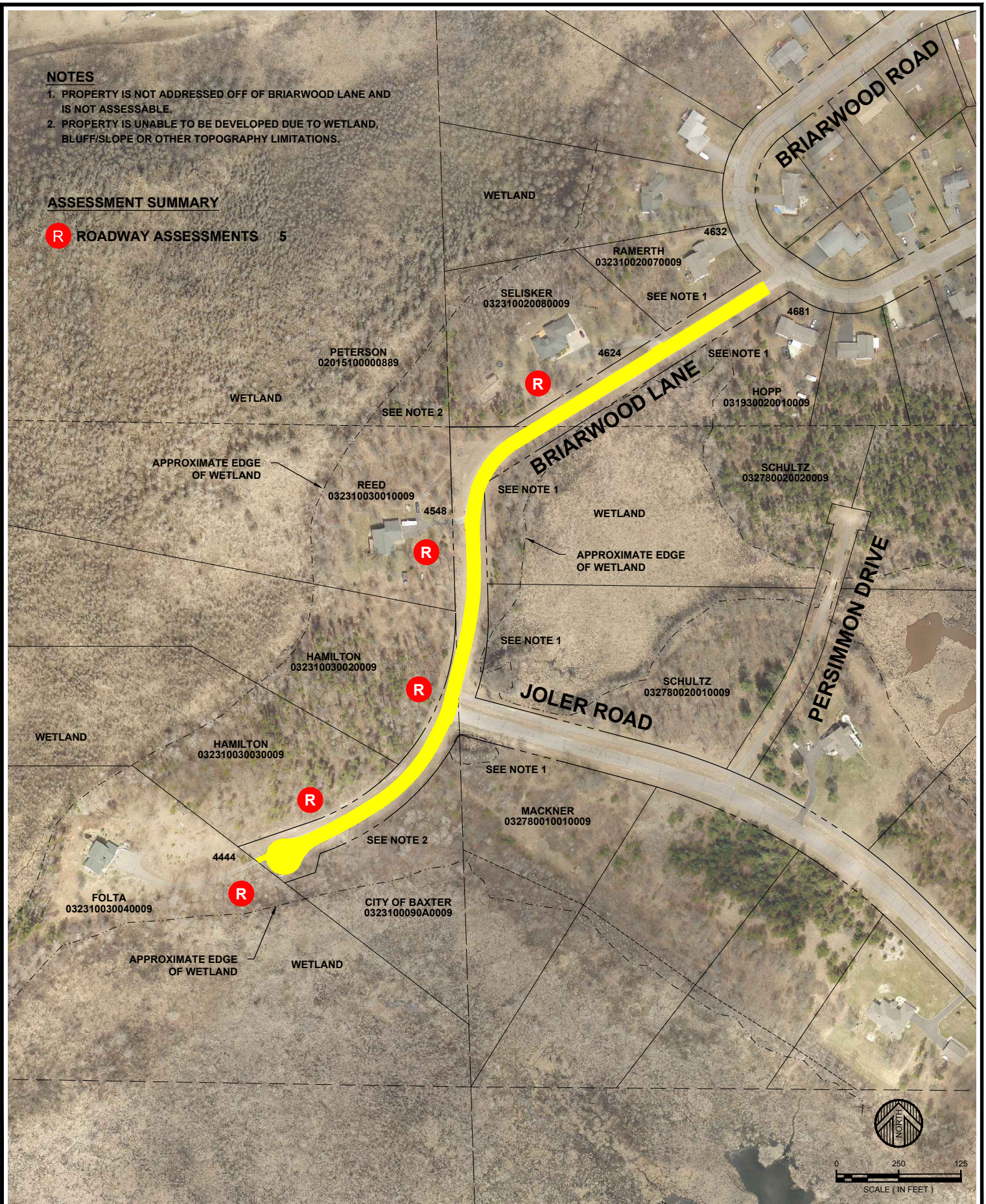
Proposed assessment locations are shown in Exhibit E.

NOTES

1. PROPERTY IS NOT ADDRESSED OFF OF BRIARWOOD LANE AND IS NOT ASSESSABLE.
2. PROPERTY IS UNABLE TO BE DEVELOPED DUE TO WETLAND, BLUFF/SLOPE OR OTHER TOPOGRAPHY LIMITATIONS.

ASSESSMENT SUMMARY

R ROADWAY ASSESSMENTS 5



**Engineering
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Environmental**

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ERIC WELCH DATE: LIC. NO. 41983

DATE	REV	REVISIONS DESCRIPTION	BY

DATE: DEC 2014
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DRAWN BY: A.L.W.
CHECKED BY: A.L.W.
JOB NUMBER: 0102B0000.000

BRIARWOOD LANE ROADWAY IMPROVEMENTS
CITY OF BAXTER
BAXTER, MINNESOTA
EXHIBIT E - ASSESSMENTS

SHEET NO.
OF

CONCLUSIONS AND RECOMMENDATIONS

This report has studied the feasibility of upgrading Briarwood Lane from a gravel surfaced roadway to a bituminous surfaced roadway. The only other option considered was the “Do Nothing” approach which was eliminated from detailed consideration.

With the large amount of wetland in the project area, approximately 44% of the property abutting Briarwood Lane was determined to be un-assessable. Due to the unique nature of this area, the City is proposing to contribute approximately \$26,540 to cover these un-assessable properties. Assessments to the remaining five developed or developable parcels were estimated at \$6,692 each.

In conclusion, we feel the proposed improvements are feasible for construction. We do not foresee any major problems other than normal inconveniences associated with construction such as noise, and traffic disturbance. These situations would be temporary in nature and we would anticipate the project to take approximately two weeks to complete.

In conclusion, we recommend the City proceed as follows:

1. Review the options and costs presented in this report.
2. Update this study as necessary.
3. Review estimated costs for financial planning.
4. Schedule the proposed improvements with the funding schedules as required.
5. Update estimated costs, if necessary.
6. Hold public hearings and begin the formal process required for an assessment project.

APPENDIX



Anderson Brothers Construction Company
P.O. Box 668
Brainerd MN 56401
218-829-1768
218-829-7607 Fax

To:	CITY OF BAXTER	Contact:	TREVOR Walters
Address:	13190 MEMORYWOOD DRIVE, P.O. BOX 2626 BAXTER, MN 56425	Phone:	(218)454-5100
		Fax:	218-454-5103
Project Name:	2014 Briarwood Lane	Bid Number:	
Project Location:	City Of Baxter	Bid Date:	5/5/2014

Item #	Item Description
2021.501	Mobilization
2104.505	Remove Bituminous Pavement
2104.513	Saw Bituminous Pavement
2112.501	Subgrade Preparation
2360.501	Bituminous Wear Course
2221.501	Topsoil Shoulder
2575.605	Turf Establishment

Total Bid Price: \$48,340.91

Notes:

- We are pleased to quote the following on the above-referenced project.
- Budget Numbers Only
- Price includes the following,
Shape existing class 5 gravel to 30' wide covering approx 1675' lf and cul-de-sac, Place 2" compacted bituminous wear course 26' wide covering approx 1675' lf/ paved 70x100 cul-de-sac, Place a 2' wide topsoil shoulder on both sides of the roadway and around the cul-de-sac and seed topsoil, match all existing bituminous driveways and place a 2' wide bituminous lip in front of all gravel driveways.

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Anderson Brothers Construction

Authorized Signature:  _____

Estimator: Al Knowlen
218-820-9926 al@andersonbrothers.com